

Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An active matrix electroluminescent display device comprising an array of display pixels, each pixel comprising:
 - an electroluminescent-~~(EL)~~ display element-~~(2)~~ and a drive transistor-~~(22)~~ for driving a current through the display element-~~(2)~~;
 - a first switch-~~(30)~~ enabling power from a power supply line-~~(26)~~ to be supplied to the display element;
 - a second switch-~~(32)~~ for routing current from a current-measurement supply line-~~(34)~~ to the display element-~~(2)~~, the first and second switches-~~(30, 32)~~ being operated in complementary manner; and
 - a control line-~~(6)~~ for controlling the gate voltage applied to the drive transistor ~~(22)~~, wherein a feedback system is provided between the current-measurement supply line-~~(34)~~ and the control line-~~(6)~~.
2. (Currently amended) ~~A device as claimed in~~ The device of claim 1, wherein the feedback system enables a gate voltage to be determined corresponding to a desired current flow through the drive transistor-~~(22)~~.
3. (Currently amended) ~~A device as claimed in~~ The device of claim 1 or 2, wherein the feedback system is provided in a column driver of the display device.
4. (Currently amended) ~~A device as claimed in any preceding claim~~ The device of claim 1, wherein each pixel further comprises a storage capacitor-~~(24)~~ for storing a gate-source voltage of the drive transistor-~~(22)~~.

5. (Currently amended) ~~A device as claimed in any preceding claim~~ The device of claim 1, wherein each pixel further comprises an address transistor ~~(16)~~ connected between the control line ~~(6)~~ and the gate of the drive transistor ~~(22)~~.

6. (Currently amended) ~~A device as claimed in~~ The device of claim 5, wherein the address transistor ~~(16)~~, and the first and second switches ~~(30, 32)~~ are each controlled by a shared control line.

7. (Currently amended) ~~A device as claimed in~~ The device of claim 6, wherein the address transistor ~~(16)~~ and the second switch ~~(32)~~ are controlled synchronously.

8. (Currently amended) ~~A device as claimed in any preceding claim~~ The device of claim 1, wherein each switch ~~(30, 32)~~ comprises a transistor.

9. (Currently amended) ~~A device as claimed in~~ The device of claim 8, wherein one ~~(32)~~ of the switches is an NMOS TFT and the other ~~(30)~~ is a PMOS TFT.

10. (Currently amended) ~~A device as claimed in any preceding claim~~ The device of claim 1, wherein the feedback system comprises:

 a current-to-voltage converter section ~~(42)~~ for providing a first voltage ~~(43)~~ corresponding to the current drawn from the current-measurement supply line ~~(34)~~;

 a comparator section ~~(50)~~ for comparing the first voltage ~~(43)~~ with an input voltage ~~(52)~~ representing the desired current; and

 a drive section ~~(50)~~ for providing a voltage on the control line ~~(6)~~, the feedback loop being in equilibrium when the control line voltage provides drive of the drive transistor ~~(22)~~ giving rise to a current corresponding to the input voltage ~~(52)~~.

11. (Currently amended) ~~A device as claimed in any preceding claim~~ The device of claim 1, wherein the device is operable in two modes:

a first mode in which a desired pixel drive current is drawn from the current-measurement supply line ~~(34)~~ and the feedback system generates the corresponding gate voltage for the drive transistor ~~(22)~~, the corresponding gate-source voltage for the drive transistor being stored; and

a second mode in which a current is driven through the drive transistor ~~(22)~~ and the EL display element ~~(2)~~ using the stored gate-source voltage.

12. (Currently amended) A method of addressing an active matrix electroluminescent display device comprising an array of display pixels, in which each pixel comprises an electroluminescent ~~(EL)~~ display element ~~(2)~~ and a drive transistor ~~(22)~~ for driving a current through the display element, the method comprising, for each pixel:

applying a voltage to the drive transistor ~~(22)~~ to drive a current through the display element ~~(2)~~, the current being drawn from a current-measurement supply line ~~(34)~~;

processing the current using feedback control circuitry outside the array of pixels and having an input ~~(52)~~ representing the desired current;

generating a control voltage in the feedback control circuitry for the drive transistor ~~(22)~~ using the processed current, thereby implementing a feedback control loop which reaches equilibrium when the current corresponds to the desired current, and supplying the control voltage to the pixel;

within the pixel, storing a voltage derived from the control voltage; and

applying the stored voltage to the gate of the drive transistor ~~(22)~~ and drawing current from a power supply line ~~(26)~~ to illuminate the display element.

13. (Currently amended) ~~A method as claimed in~~ The method of claim 12, wherein processing the current comprises converting the current into a voltage, and comparing the voltage with an input voltage representing the desired current to produce an amplified differential output.

14. (Currently amended) ~~A method as claimed in~~ The method of claim 13, wherein the control voltage comprises the amplified differential output.

15. (Currently amended) ~~A method as claimed in~~ The method of any one of claims 12 to 14, wherein current is drawn from the power supply line through a first switch ~~(30)~~ and current is drawn from the current-measurement supply line ~~(34)~~ through a second switch ~~(32)~~, the first and second switches being operated in complimentary manner, the first switch being used after an initial pixel programming phase and the second switch being used during the initial pixel programming phase.

16. (New) A method comprising:

- providing a first current to a display element of a display based on a control voltage applied in a programming mode,

- modifying the control voltage in the programming mode based on the first current,

- storing a stored voltage corresponding to the control voltage, and

- providing a subsequent current to the display element based on the stored voltage in a second mode.

17. (New) The method of claim 16, including coupling the display element to a first voltage source to provide the first current, and coupling the display element to a second voltage source to provide the subsequent current.

18. (New) A display device comprising
a plurality of pixels,
each pixel including:
a display element,
a storage element,
one or more switches that are configured to:
provide a first current to the display element based on a control
voltage in a programming mode,
store a stored voltage at the storage element based on the
control voltage in the programming mode, and
provide a subsequent voltage to the display element based on
the stored voltage in a second mode, and
a feedback element that is configured to modify the control voltage
based on the first current in the programming mode.

19. (New) The display device of claim 18, wherein
the one or more switches are configured to couple the display element to a
first voltage source to provide the first current, and to couple the display element to a
second voltage source to provide the subsequent current.

20. (New) The display device of claim 19, wherein
the second voltage source corresponds to a power supply line.